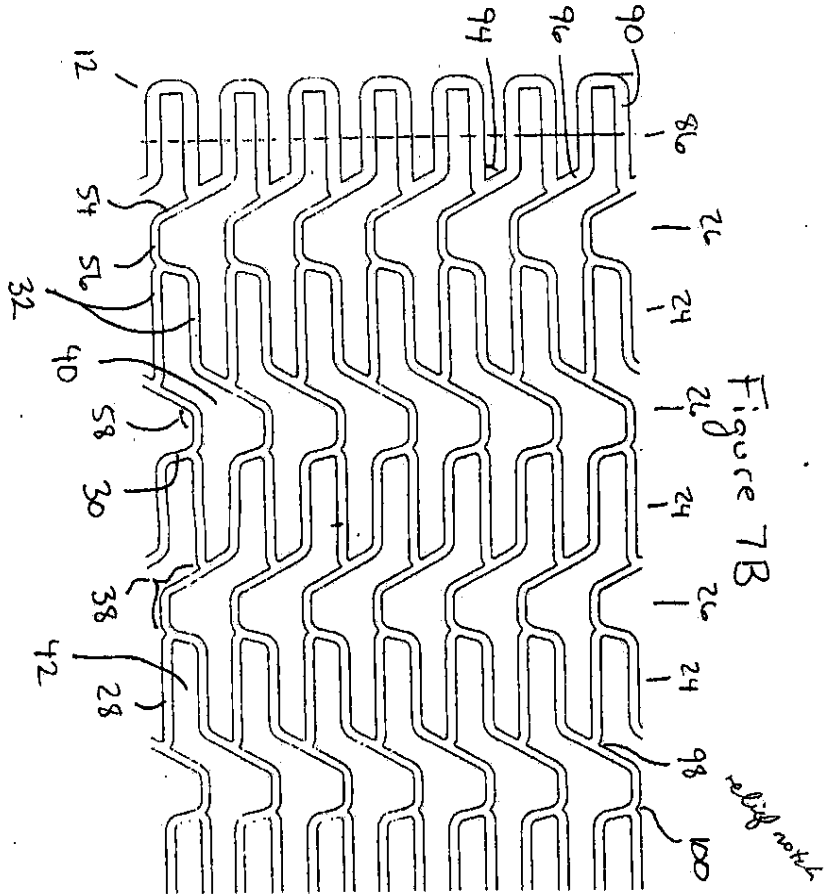


PRINT OF DRAWINGS
AS ORIGINALS
LED



1032442-032597

PRINT OF DRAWINGS
AS ORIGINAL FILED

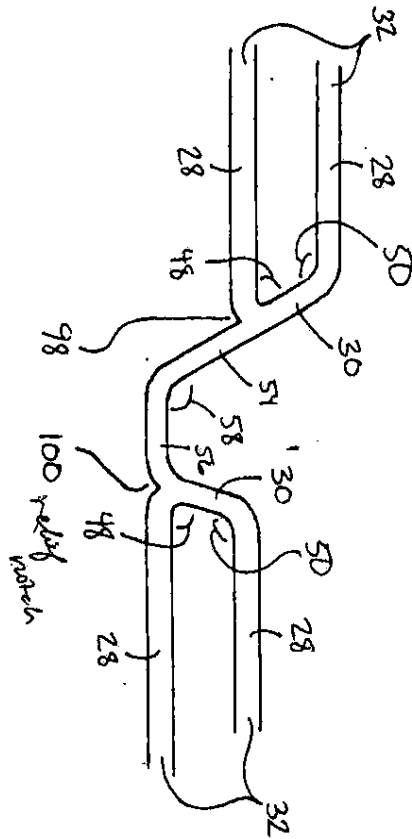


Figure 7C

08824142-032597

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AS ORIGINALLY FILED

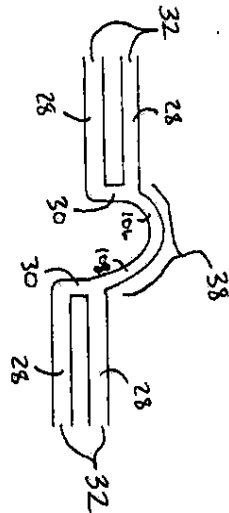


Figure 18B

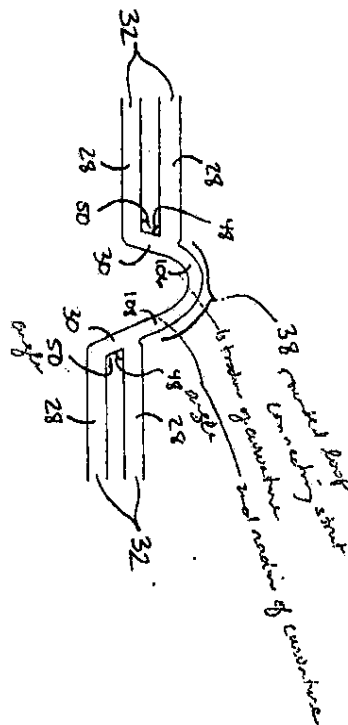
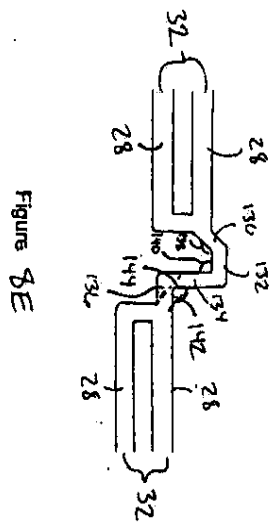
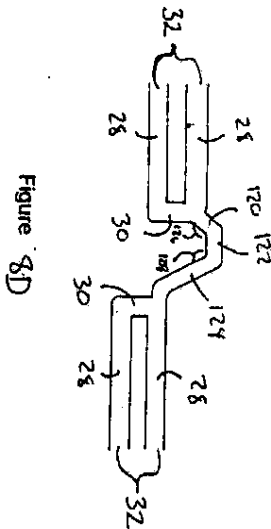
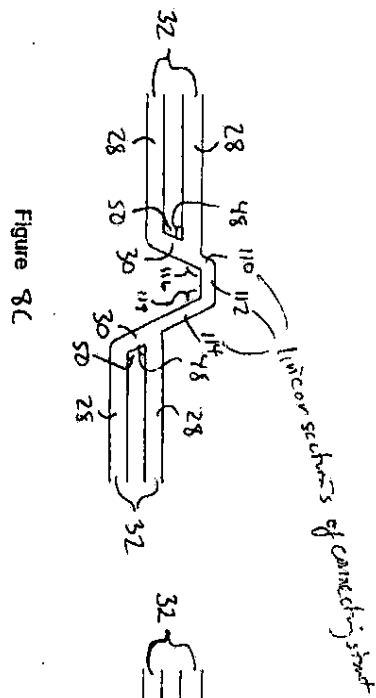


Figure 18A

THE UNIVERSITY OF CHICAGO

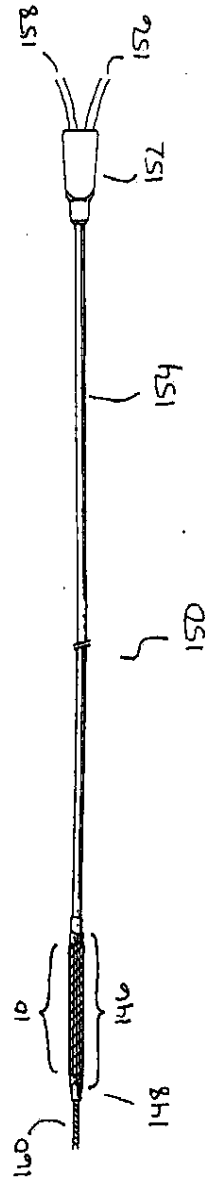
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Figure 9





CERTIFICATE OF MAILING BY "EXPRESS MAIL"
"Express Mail" Mailing Label No. EM321302241US
Date of Deposit: March 25, 1997
I hereby certify that this paper or fee is being deposited with sufficient postage with the United States Postal Service
"Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to
Box Patent Application, Assistant Commissioner for Patents, Washington, D.C. 20231
Jeff Rank
(Typed or Printed Name of Person Mailing Paper or Fee)
Jeff Rank
(Signature of Person Mailing Paper or Fee)



PATENT
Attorney Docket No. 17928-707

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

UTILITY PATENT
APPLICATION TRANSMITTAL LETTER

Asst. Commissioner for Patents
Box Patent Application
Washington, D.C. 20231

Sir:

Enclosed for filing is an ☒ original patent application or, ☐ a continuation-in-part
patent application by G. David Jang for
INTRAVASCULAR STENT

Also enclosed are:

- ☒ 14 sheet(s) of ☐ formal ☒ informal drawing(s);
- ☐ a claim for foreign priority under 35 U.S.C. §§ 119 and/or 365 in
☐ a separate document ☐ the declaration;
- ☐ a certified copy of the priority document;
- ☐ an Associate Power of Attorney;
- ☐ verified statement(s) claiming small entity status;
- ☐ an Assignment document and form PTO-1595.

The declaration of the inventor(s) ☐ also is enclosed ☒ will follow.

08824142-032597

The fee has been calculated as follows:

CLAIMS					
	NO. OF CLAIMS		EXTRA CLAIMS	RATE	FEE
Basic Application Fee					\$770.00
Total Claims	74	MINUS 20 =	54	\$22.00=	1188.00
Independent Claims	3	MINUS 3 =	0	\$80.00=	0.00
If multiple dependent claims are presented, add \$260.00					0.00
Total Application Fee					1958.00
If verified statement claiming small entity status is enclosed, subtract 50% of Total Application Fee					0.00
Add Recording Fee of \$40.00 if Assignment document is enclosed					0.00
TOTAL APPLICATION FEE DUE					1958.00

- 08824142-032597
- ☐ A check in the amount of \$____ is enclosed.
- ☐ Charge \$____ to Deposit Account No. 23-2415 (Atty. Docket No. 17928-707).
- ☒ Fees will be paid when responding to the Notice to File Missing Parts.

Respectfully submitted,
WILSON SONSHINI GOODRICH & ROSATI

By



Paul Davis
Registration No. 29,294

650 Page Mill Road
Palo Alto, CA 94304-1050
(415) 493-9300
Date: March 25, 1997

Application No. 08/824,142

Page 2

Patent Application Filing Fee

The patent application filing fee (if applicable) is calculated as shown below:

CLAIMS					
	NO. OF CLAIMS		EXTRA CLAIMS	RATE	FEE
Basic Application Fee					\$ 770.00
Total Claims	74	MINUS 20=	54	x \$22 =	1,188.00
Independent Claims	3	MINUS 3 =	0	x \$80 =	0.00
If multiple dependent claims are presented, add \$260.00					0.00
Total Application Fee (LARGE ENTITY)					1,958.00
If verified statement claiming small entity status is enclosed, subtract 50% of Total App. Fee					- 979.00
PATENT APPLICATION FILING FEE					979.00

Total Fee

The Total Fee associated with this communication has been calculated as shown below:

<input checked="" type="checkbox"/>	Patent application filing fee	\$ 979.00
<input type="checkbox"/>	Net fee for extension of time	\$ _____
<input type="checkbox"/>	Assignment recordation fee	\$ _____
<input checked="" type="checkbox"/>	Surcharge under 37 C.F.R. §1.16(e) for late filing of oath or declaration	
<input type="checkbox"/>	Large Entity (\$130.00)	\$ _____
<input checked="" type="checkbox"/>	Small Entity (\$65.00)	\$ 65.00
	TOTAL FEE DUE:	\$ 1,044.00

Method of Payment of Fees

- ☐ A check in the amount of \$ _____
- ☒ Charge \$1,044.00 to Deposit Account No. 23-2415 (Docket No. 18461-703).

The Commissioner is hereby authorized to charge any fees that may be required by this paper, including petition fees, to Deposit Account No. 23-2415 (Docket No. 18461-702). A duplicate of this paper is enclosed.

Respectfully submitted,
WILSON, SONSHIN, GOODRICH & ROSATI

Date:

9/22/97

By



Paul Davis, Reg. No. 29,294

650 Page Mill Road
Palo Alto, CA 94304-1050
(415) 493-9300

H:\PRIVATE\WPD\DCSPDUANG\702.MP

EXHIBIT 2



UNITED STATES DEPARTMENT OF COMMERCE

Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO./TITLE
08/824,142	03/25/97	JANG	17828-707

0262/0814

WILSON SONGINI GOODRICH ROSATI
650 PAGE MILL ROAD
PALO ALTO CA 94304-1050

NOT ASSIGNED

3309

DATE MAILED:

08/14/97

NOTICE TO FILE MISSING PARTS OF APPLICATION
Filing Date Granted

An Application Number and Filing Date have been assigned to this application. However, the items indicated below are missing. The required items and fees identified below must be timely submitted ALONG WITH THE PAYMENT OF A SURCHARGE for items 1 and 3-6 only of \$ 130 for a ☒ large entity ☐ small entity in compliance with 37 CFR 1.27. The surcharge is set forth in 37 CFR 1.18(e). Applicant is given TWO MONTHS FROM THE DATE OF THIS NOTICE within which to file all required items and pay any fees required above to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

If all required items on this form are filed within the period set above, the total amount owed by applicant as a ☒ large entity ☐ small entity (verified statement filed), is \$ 130.

- ☐ 1. The statutory basic filing fee is:

- ☐ missing.
☐ insufficient.

Applicant must submit \$ _____ to complete the basic filing fee and/or file a verified small entity statement claiming such status (37 CFR 1.27).

- ☐ 2. Additional claim fees of \$ _____, including any multiple dependent claim fees, are required. Applicant must either submit the additional claim fees or cancel additional claims for which fees are due.

- ☒ 3. The oath or declaration:

- ☐ is missing.
☐ does not cover the newly submitted items.
☐ does not identify the application to which it applies.
☐ does not include the city and state or foreign country of applicant's residence.

An oath or declaration in compliance with 37 CFR 1.63, including residence information and identifying the application by the above Application Number and Filing Date is required.

- ☐ 4. The signature(s) to the oath or declaration is/are:

- ☐ missing.
☐ by a person other than inventor or person qualified under 37 CFR 1.42, 1.43, or 1.47.

A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.

- ☐ 5. The signature of the following joint inventor(s) is missing from the oath or declaration:

An oath or declaration listing the names of all inventors and signed by the omitted inventor(s), identifying this application by the above Application Number and Filing Date, is required.

- ☐ 6. A \$ _____ processing fee is required since your check was returned without payment (37 CFR 1.21(m)).
☐ 7. Your filing receipt was mailed in error because your check was returned without payment.
☐ 8. The application does not comply with the Sequence Rules.
See attached "Notice to Comply with Sequence Rules 37 CFR 1.821-1.825."
☐ 9. OTHER:

Direct the response and any questions about this notice to "Attention: Box Missing Parts."

A copy of this notice MUST be returned with the response.

Customer Service Center
Initial Patent Examination Division (703) 308-1202

EXHIBIT 3

Application No. 08/824,142
Page 2

In the Claims:

23. (Amended) The stent of claim 22, further comprising:

a first expansion strut pair including a first expansion strut, a second expansion strut and a joining strut coupling a first expansion strut proximal end to a second expansion strut proximal end; and

a second expansion strut pair including a first expansion strut, a second expansion strut and a joining strut coupling a distal end of the first expansion strut to a distal end of the second expansion strut, the second expansion strut pair being coupled to the first expansion strut pair by the first and second connecting struts, wherein the first expansion strut pair, the second expansion strut pair, a first connecting strut and a second connecting strut [defining] define an asymmetrical cell space.

54. (Amended) The stent of claim 50, wherein each first connecting [first strut] strut first slant angle is directed in a first circumferential direction.

61. (Amended) The stent of claim 60, further comprising:

a [reinforcement] reenforcement expansion column made of a plurality of [reinforcement] reenforcement expansion struts, wherein at least a portion of the [reinforcement] reenforcement expansion struts have a width that is greater than a width of at least a portion of expansion struts in the first or second expansion columns.

62. (Amended) The stent of claim 60, wherein the stent has a proximal end with a first [reinforcement] reenforcement expansion column and a distal end with a second [reinforcement] reenforcement expansion column.

69. The stent of claim 68, wherein each [third strut slant angle] second connecting strut third slant angle is directed in a second circumferential direction that is in an opposite direction of a first circumferential direction of the first [strut] slant angle of the first connecting strut.

Application No. 08/824,142
Page 3

REMARKS

The specification and claims 23, 54, 61, 62 and 69 have been amended to put the application in better condition for examination. No new subject matter has been introduced. Additionally, the attorney docket number filed with the original application is in error. The correct attorney docket number for this application is 18461.702.

CONCLUSION

It is submitted that the present application is in form for allowance, and such action is respectfully requested.

The Commissioner is authorized to charge any additional fees which may be required, including petition fees, to Deposit Account No. 23-2415 (18461.702). A duplicate copy of this paper is enclosed.

Respectfully submitted,

WILSON SONSINI GOODRICH & ROSATI

Date: 9/22/97

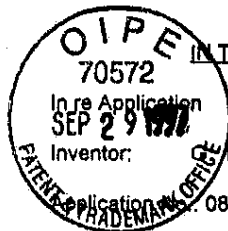
By: 

Paul Davis, Reg. No. 29,294

650 Page Mill Road
Palo Alto, California 94304
(415) 493-9300

3

Attorney Docket No. 18461-702



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

Examiner: Unknown

Group Art Unit: Unknown

Filed: March 25, 1997

Title: INTRAVASCULAR STENT

VERIFIED STATEMENT CLAIMING SMALL ENTITY STATUS
37 C.F.R. § 1.9(f) AND 1.27(b) - INDEPENDENT INVENTOR

As a below named inventor, I hereby declare that I qualify as an Independent Inventor as defined in 37 C.F.R. §1.9(c) for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code, to the Patent and Trademark Office with regard to the invention entitled:

INTRAVASCULAR STENT

described in

_____ the specification filed herewith

☒ application no. 08/824,142, filed March 25, 1997

_____ patent no. _____, issued _____

I have not assigned, granted, conveyed or licensed and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who could not be classified as an independent inventor under 37 C.F.R. §1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 C.F.R. §1.9(d) or a nonprofit organization under 37 C.F.R. §1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

☒ no such person, concern, or organization
☐ persons, concerns or organizations listed below

NAME: _____

ADDRESS: _____

ADDRESS: _____

☐ Individual ☐ Small Business Concern ☐ Nonprofit Organization

NAME: _____

ADDRESS: _____

☐ Individual ☐ Small Business Concern ☐ Nonprofit Organization

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small business entity is no longer appropriate. (37 C.F.R. § 1.28(b)).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Name of Person Signing: G. David Jang

Title of Person Signing: _____

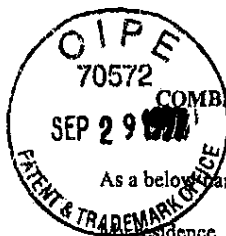
Address of Person Signing: 30725 Eastburn Lane, Redlands, CA 92374

Signature: 

Date: Aug. 25, 97

* Note: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 C.F.R. § 1.27).

3



PATENT
Attorney Docket No. 18461-702

COMBINED CIP DECLARATION AND POWER OF ATTORNEY
FOR UTILITY PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

INTRAVASCULAR STENT

the specification of which

_____ is attached hereto.

X was filed on March 25, 1997 as Application No. 08/824,142

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56(a) which states in relevant part: "Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section....The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98."

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate as indicated below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s):

Priority Claimed

_____ (Number)	_____ (Country)	_____ (Day/Month/Year Filed)	_____ Yes	_____ No
_____ (Number)	_____ (Country)	_____ (Day/Month/Year Filed)	_____ Yes	_____ No

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as this is a continuation-in-part application filed under the conditions set forth in 35 United States Code, §120, which discloses and claims subject matter in addition to the prior copending application(s) listed below, I acknowledge the duty to disclose to the United States Patent Office all information known to be material to patentability as defined in Title

Attorney Docket No. 18461-702

37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

<u>08/824,866</u> (Application Serial No.)	<u>March 26, 1997</u> (Filing Date)	<u>Pending</u> (Patented, Pending, Abandoned)
<u>08/824,865</u> (Application Serial No.)	<u>March 25, 1997</u> (Filing Date)	<u>Pending</u> (Patented, Pending, Abandoned)
<u>60/017,484</u> (Application Serial No.)	<u>April 26, 1996</u> (Filing Date)	<u>Pending</u> (Patented, Pending, Abandoned)

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith, and to file, prosecute and to transact all business in connection with international applications directed to said invention:

Paul Davis	29,294
Mark A. Haynes	30,846
Charles C. Cary	36,764
Michael J. Panepucci	37,203
Michael J. Murphy	37,404
David J. Weitz	38,362
Kent R. Richardson	39,443
George A. Willman	41,378
U.P. Peter Eng	39,666
John J. Bruckner	35,816

Address all correspondence to:

Paul Davis
Wilson, Sonsini, Goodrich & Rosati
650 Page Mill Road
Palo Alto, CA 94304

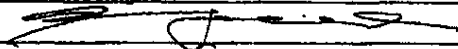
Direct all telephone calls to Paul Davis at (415) 493-9300.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Title 18, United States Code, §1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or
first inventor:

G. David Jang

Inventor's signature:


9-18-97

Date:

Citizenship:

US

Residence:

30725 Eastburn Lane, Redlands, CA 02374

Post Office Address:

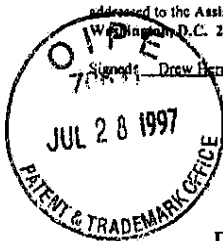
Same as above

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8
- FIRST CLASS MAIL

I hereby certify that this document is being deposited, postage prepaid,
with the United States Postal Service as "First Class Mail" in an envelope
addressed to the Assistant Commissioner for Patents,

Washington, D.C. 20231 on July 23, 1997

Signed: Drew Herndon



Attorney Docket No. 18461-702

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)
G. David Jang)
Application No.: 08/824,142)
Filed: March 25, 1997)
Title: INTRAVASCULAR STENT)
_____)

STATUS INQUIRY

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Please provide the current status on the above-identified patent application. The application was
filed on March 25, 1997 and the last action our records reflect is a return postcard acknowledging
receipt of the application which was mailed from the U.S. Patent and Trademark Office and received
on April 30, 1997.

The Commissioner is hereby authorized to charge any additional fees which may be required by
this paper to Deposit Account No. 23-2415. This paper is submitted in duplicate.

Respectfully submitted,

WILSON SONSINI GOODRICH & ROSATI

Date:

7/23/97

By:

A handwritten signature of Paul Davis.

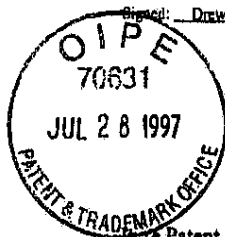
Paul Davis, Reg. No. 29,294

650 Page Mill Road
Palo Alto, California 94304
Telephone: (415) 493-9300

**CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8
- FIRST CLASS MAIL**

I hereby certify that this document is being deposited, postage prepaid, with the United States Postal Service as "First Class Mail" in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on July 23, 1997

~~Signed:~~ Drew Hemdon



Attorney Docket No. 18461-702

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

~~DEMAN~~
-In re Patent Application of

G. David Jang

Application No.: 08/824,142

Filed: March 25, 1997

Title: INTRAVASCULAR STENT

STATUS INQUIRY

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Please provide the current status on the above-identified patent application. The application was filed on **March 25, 1997** and the last action our records reflect is a **return postcard** acknowledging receipt of the application which was mailed from the U.S. Patent and Trademark Office and received on **April 30, 1997**.

The Commissioner is hereby authorized to charge any additional fees which may be required by this paper to Deposit Account No. 23-2415. This paper is submitted in duplicate.

Respectfully submitted,

~~WILSON SONS IN GOODRICH & ROSATI~~

Date:

7/23/97

By:

Paul

Paul Davis, Reg. No. 29,294

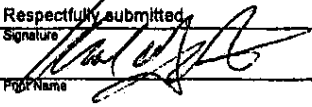
650 Page Mill Road
Palo Alto, California 94304
Telephone: (415) 493-9300

Transmittal of Application Pursuant To 37 CFR 1.62
(cont.)

Docket No. 50942USA6B

9. ☒ An assignment is ☐ enclosed or ☒ of record in prior application.
 10. ☒ A power of attorney is ☐ enclosed or ☒ of record in prior application.
 11. ☐ Other


Registration Number	Telephone Number
32,900	612-736-7776
Date	
February 10, 1997	

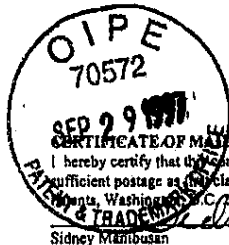
Respectfully submitted, Signature

Print Name
Karl G. Hanson

Certificate of Express Mailing

- ☒ Pursuant to 37 CFR 1.10 I certify that this application is being deposited on the date indicated below with the United States Postal Service "Express Mail Post Office to Addressee" service addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.

Express Mail Mailing Label No.
TB 372 327 494 US
Date of Deposit
February 10, 1997

Signature of Person Mailing Application

Printed Name of Person Mailing Application
Susan M. Dacko



4-3-98
 20 2-17-98
 0260 0300
 2250
 0210
 0260/8
 0300
 027291
 3309

PATENT

Attorney Docket No. 18461-702

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of)	
G. David Jang)	Group Art Unit: Unassigned
Application No.: 08/824,142)	Examiner: Unassigned
Filed: March 25, 1997)	
For: INTRAVASCULAR STENT)	

TRANSMITTAL LETTER FOR MISSING PARTS OF APPLICATION

Assistant Commissioner for Patents
 Attn: Application Processing Division
 Special Processing and Correspondence Branch
 Washington, D.C. 20231

RECEIVED
 DEC 11 1997
 GROUP 330

Sir:

In complete response to the Notice to File Missing Parts of Application mailed August 14, 1997,

enclosed please find:

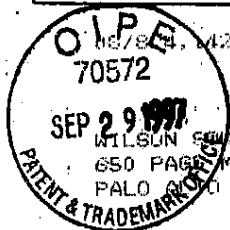
- ☒ Form PTO-1533 (copy of Notice to be returned with response);
- ☐ a Petition for Extension of Time;
- ☐ a Declaration for Patent Application
- or ☒ a Combined Declaration and Power of Attorney
 signed by the inventor(s) and the surcharge of
☒ \$65.00 ☐ \$130.00 as set forth in 37 CFR § 1.16(e);
- ☒ a Declaration Claiming Small Entity Status;
- ☐ an Assignment document, Form PTO-1595, and the \$40.00 Assignment Recordation Fee;
- ☒ a Preliminary Amendment.

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 DEC 12 1997
 GROUP 330



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO./TITLE
01/28/97 142	03/25/97	JANG	D 17928-707



0262/0314

NOT ASSIGNED

3309

DATE MAILED:

08/14/97

NOTICE TO FILE MISSING PARTS OF APPLICATION Filing Date Granted

An Application Number and Filing Date have been assigned to this application. However, the items indicated below are missing. The required items and fees identified below must be timely submitted ALONG WITH THE PAYMENT OF A SURCHARGE for items 1 and 3-6 only of \$ 150 for a ☐ large entity ☐ small entity in compliance with 37 CFR 1.27. The surcharge is set forth in 37 CFR 1.18(e). Applicant is given TWO MONTHS FROM THE DATE OF THIS NOTICE within which to file all required items and pay any fees required above to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

If all required items on this form are filed within the period set above, the total amount owed by applicant as a ☒ large entity ☐ small entity (verified statement filed), is \$ 150.

☐ 1. The statutory basic filing fee is:

- ☐ missing.
- ☐ insufficient.

Applicant must submit \$ _____ to complete the basic filing fee and/or file a verified small entity statement claiming such status (37 CFR 1.27).

☐ 2. Additional claim fees of \$ _____, including any multiple dependent claim fees, are required.

Applicant must either submit the additional claim fees or cancel additional claims for which fees are required.

☒ 3. The oath or declaration:

- ☒ is missing.
- ☐ does not cover the newly submitted items.
- ☐ does not identify the application to which it applies.
- ☐ does not include the city and state or foreign country of applicant's residence.

An oath or declaration in compliance with 37 CFR 1.63, including residence information and identifying the application by the above Application Number and Filing Date is required.

☐ 4. The signature(s) to the oath or declaration is/are:

- ☐ missing.
- ☐ by a person other than inventor or person qualified under 37 CFR 1.42, 1.43, or 1.47.

A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.

☐ 5. The signature of the following joint inventor(s) is missing from the oath or declaration:

An oath or declaration listing the names of all inventors and signed by the omitted inventor(s), identifying this application by the above Application Number and Filing Date, is required.

☐ 6. A \$ _____ processing fee is required since your check was returned without payment (37 CFR 1.151(m)).

☐ 7. Your filing receipt was mailed in error because your check was returned without payment.

☐ 8. The application does not comply with the Sequence Rules.

See attached "Notice to Comply with Sequence Rules 37 CFR 1.821-1.825."

☐ 9. OTHER:

Direct the response and any questions about this notice to "Attention: Box Missing Parts."

A copy of this notice MUST be returned with the response.

Customer Service Center
Initial Patent Examination Division (703) 308-1202

RECEIVED

DEC 12 1997

GROUP 830

8/20/97
US-MISSING PART

10/14/97 Due

2/14/98 Final
18461-702

0428312

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0428315



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO./TITLE
--------------------	---------------------	-----------------------	---------------------------

08/877,429 06/17/97 THEIS M 95.535CIP

0292/1106

LARRY W MCKENZIE
WALKER MCKENZIE & WALKER
636 POPLAR
SUITE 434
MEMPHIS TN 38119-4896

NOT ASSIGNED

DATE MAILED:

RECEIVED

DEC 12 1997 11/06/97

NOTICE TO FILE MISSING PARTS OF APPLICATION
Filing Date Granted

GROUP 330

An Application Number and Filing Date have been assigned to this application. However, the items indicated below are missing. The required items and fees identified below must be timely submitted ALONG WITH THE PAYMENT OF A SURCHARGE for items 1 and 3-8 only of \$ 130 for a ☒ large entity ☐ small entity in compliance with 37 CFR 1.27. The surcharge is set forth in 37 CFR 1.16(e). Applicant is given TWO MONTHS FROM THE DATE OF THIS NOTICE within which to file all required items and pay any fees required above to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

If all required items on this form are filed within the period set above, the total amount owed by applicant as a ☒ large entity ☐ small entity (verified statement filed), is \$ 130.

☐ 1. The statutory basic filing fee is:

- ☐ missing.
☐ insufficient.

Applicant must submit \$ _____ to complete the basic filing fee and/or file a verified small entity statement claiming such status (37 CFR 1.27).

☐ 2. Additional claim fees of \$ _____, including any multiple dependent claim fees, are required. Applicant must either submit the additional claim fees or cancel additional claims for which fees are due.

☐ 3. The oath or declaration:

- ☐ is missing.
☐ does not cover the newly submitted items.
☐ does not identify the application to which it applies.
☐ does not include the city and state or foreign country of applicant's residence.

An oath or declaration in compliance with 37 CFR 1.63, including residence information and identifying the application by the above Application Number and Filing Date is required.

☒ 4. The signature(s) to the oath or declaration is/are:

- ☐ missing.
☐ by a person other than inventor or person qualified under 37 CFR 1.42, 1.43, or 1.47.
A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.

☐ 5. The signature of the following joint inventor(s) is missing from the oath or declaration:

An oath or declaration listing the names of all inventors and signed by the omitted inventor(s), identifying this application by the above Application Number and Filing Date, is required.

☐ 6. A \$ _____ processing fee is required since your check was returned without payment (37 CFR 1.21(m)).

☐ 7. Your filing receipt was mailed in error because your check was returned without payment.

☐ 8. The application does not comply with the Sequence Rules.
See attached "Notice to Comply with Sequence Rules 37 CFR 1.821-1.825."

☐ 9. OTHER:

Direct the response and any questions about this notice to "Attention: Box Missing Parts."

A copy of this notice MUST be returned with the response.

Customer Service Center
Initial Patent Examination Division (703) 308-1202

EXHIBIT 4

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on October 27, 1997

Drew R. Herndon

(Typed or Printed Name of Person Mailing Paper or Fee)

Drew R. Herndon

(Signature of Person Mailing Paper or Fee)

GA 3309

1/10/98 #4 IDS
Jina C.
6-8-98

PATENT
Attorney Docket No. 18461-702

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application

Inventor(s): G. David Jang

Application No.: 08/824,142

Filed: March 26, 1997

Title: INTRAVASCULAR STENT

) **PATENT APPLICATION**

)

)

) Art Unit: Unknown

)

) Examiner: Unknown

)

)

)

RECEIVED

NOV 5 1997

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. GROUP 3300

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Listed below or on an attached Form PTO-1449 is information known to applicant(s). A copy of each listed publication and U.S. and foreign patent, except for pending U.S. applications, is being submitted herewith, along with a concise explanation of information in a foreign language, if any, pursuant to 37 C.F.R. §1.97-1.98.

Applicants respectfully request that the listed information be considered by the Examiner and be made of record in the above-identified application. If form PTO-1449 is enclosed, the Examiner is requested to initial and return it in accordance with MPEP §609.

This statement is not intended to represent that a search has been made or that the information cited in the statement is, or is considered to be, material to patentability as defined in §1.56.

Each of the references listed on the attached PTO 1449 was cited in a foreign search report in one or more copending foreign applications not more than three months prior to the filing of this paper. A copy of each search report is included with the references cited.

X This statement qualifies under 37 C.F.R. §1.97, subsection (b) because (check all that apply):

- (1) It is being filed within 3 months of the application filing date
-- OR --
— (2) It is being filed within 3 months of entry of a national stage
-- OR --
X (3) It is being filed before the mail date of the first Office Action on the merits.

No certification or fee is necessary with this submission.

— 37 C.F.R. §1.97(c). If this statement is being filed after the latest of: (1) three months beyond the filing date of a national application; (2) three months beyond the date of entry of the national stage as set forth in §1.491 in an international application; or (3) the mailing date of a first Office action on the merits, but before the mailing date of the earlier of a final office action under §1.113 or a notice of allowance under §1.311, then:

- a certification as specified in §1.97(e) is provided below; or
— a fee of \$240.00 as set forth in §1.17(p) is authorized below, enclosed, or included with the payment of other papers filed together with this statement.

— 37 C.F.R. §1.97(d). If this statement is being filed after the mailing date of the earlier of a final office action under §1.113 or a notice of allowance under §1.311, but before payment of the issue fee, then:

- A. a certification as specified in §1.97(e) is completed below; and
B. a petition under 37 C.F.R. §1.97(d) requesting consideration of this statement is submitted herewith; and
C. a fee of \$130.00 as set forth in §1.17(i)(1) is authorized below, enclosed, or included with the payment of other papers filed together with this statement.

X Fee Authorization. The Commissioner is hereby authorized to charge the above-referenced fees of \$ 0 and charge any additional fees or credit any overpayment associated with this communication to Deposit Account No. 23-2415 (Docket No. 18461-702).

Respectfully submitted,

WILSON SONNINI GOODRICH & ROSATI

Date: 0/27/97

By: Paul Davis

Paul Davis
Reg. No. 29,294

650 Page Mill Road
Palo Alto, CA 94304-1050
(650) 493-9300

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

EXHIBIT 5



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, DC 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/824,142 03/25/97 JANG

D 17828-707

WM31/0928
WILSON SONSINI GOODRICH ROSATI
650 PAGE MILL ROAD
PALO ALTO CA 94304-1050

EXAMINER

NGUYEN, D

ART UNIT PAPER NUMBER

3736

DATE MAILED:

09/28/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 08/824,142	Applicant(s) Jang
	Examiner Dinh Nguyen	Group Art Unit 3738

☐ Responsive to communication(s) filed on _____

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 1 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-74 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☐ Claim(s) _____ is/are rejected.

☐ Claim(s) _____ is/are objected to.

☒ Claims 1-74 are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

Application/Control Number: 08/824,142

Page 2

Art Unit: 3738

This application contains claims directed to the following patentably distinct species of the claimed invention:

- I. Figures 2A-2B: curvi-linear connecting struts; claims 31 and 50-55
- II. Figures 3A-3B: two-pieces-linear connecting struts; claims 16, 21-30, and 32-36;
- III. Figure 5: different lengths expansion columns with tapered diameter; claims 57-58, 73 and 74;
- IV. Figures 6A-6B: reenforcement expansion columns; claims 37-39, 61 and 62;
- V. Figures 7A-7C: relief notch struts; no claims presently;
- VI. Figures 8A-8B: rounded loop connecting struts; claims 14, 15, and 56;
- VII. Figure 8C: three-pieces-linear connecting struts; claims 17, 64 and 67-69;
- VIII. Figure 8D: four-pieces-linear connecting struts with type 1 angle configuration; claims 18 and 40-48; and
- IX. Figure 8E: four-pieces-linear connecting struts with type 2 angle configuration; claims 18, 44, 70, 71, 73 and 74.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1-13, 19, 20, 22, 49, 60, 63, 65, 66 and 72 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon,

Application/Control Number: 08/824,142

Page 3

Art Unit: 3738

including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is required to select one of the figures for the species election. Due to the convolution of the claims, as well as indefiniteness and unclarity of certain claim language, the restriction above may be further refined. Accordingly, the election via choosing one of the figures above is best to define different species. Examples of 112 problems pertaining to the claims which make the grouping of the claims difficult, such that further refinement of the restriction are warranted, are as follows:

In claim 40, the first third slant angle is claimed. However, no second angle has been defined.

Application/Control Number: 08/824,142

Page 4

Art Unit: 3738

In claim 45, it is not clear what "circumferentially offset" means. In claim 40, the second expansion column is compared to the third expansion column with respect to "circumferentially offset". However, in claim 54 and elsewhere, "circumferentially offset" is used to compare one connecting strut to another, instead of the expansion struts. It appears that in claim 45, "circumferentially offset" is used to relate to offsetting in a colinear or coaxial fashion, but not so in claim 54. Note that claim 45 appears to be a duplicate of claim 43. Note that "circumferentially offset" is used in claims 49 and 63 as well.

In claims 64 and 67, a third slant angle was included in the claim language but no where has either the first nor the second slant angle been defined.

Applicant should note that there are many angles formed by linear parts to certain connecting struts shown in the figures, and unless Applicant clearly define exactly which angle is which in the claim language, the claim language will be rejected based on indefiniteness and making it very difficult for the election process as well.

In electing a species through the figures, amendment to claim dependency will be required for certain claims. Currently there are 74 claims with a myriad of features. In electing a figure for a species, Applicant might choose to cancel the present claims and write new claims. Note that due to the convolution of claims and indefiniteness, further restrictions may be required.

Due to the complexity of the restriction made above, this restriction is being mailed to Applicant.


Application/Control Number: 08/824,142


Page 5

Art Unit: 3738

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dinh Nguyen whose telephone number is (703) 305-3522.


David H. Willes
Primary Examiner


Dinh Nguyen

September 15, 1998

EXHIBIT 6

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on 9/9/98

Michelle E. Grassia
Michelle E. Grassia



GP 3738

IDS/#6
JMAC
10-21-98

C9-30

PATENT
Attorney Docket No. 18461.702

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application)	<u>PATENT APPLICATION</u>
Inventor(s): G. David Jang)	
Application No.: 08/824,142)	Art Unit: Not Yet Assigned
Filed: March 26, 1997)	Examiner: Not Yet Assigned
Title: INTRAVASCULAR STENT)	

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97

Assistant Commissioner for Patents
Washington, D.C. 20231

RECEIVED

JAN 14 1998

Group 3700

Sir:

Listed below or on an attached Form PTO-1449 is information known to applicant(s). Due to the large number of references and since these same references are being cited on many applications, only one copy of each listed publication and U.S. and foreign patent, except for pending U.S. applications, is being submitted along with a concise explanation of information in a foreign language, if any, pursuant to 37 C.F.R. §1.97-1.98. The references are being submitted concurrent with this information disclosure statement in application serial number 08/642,053, which is a prior application to this application. An additional copy of these references will be supplied upon request.

Applicants respectfully request that the listed information be considered by the Examiner and be made of record in the above-identified application. If form PTO-1449 is enclosed, the Examiner is requested to initial and return it in accordance with MPEP §609.

This statement is not intended to represent that a search has been made or that the information cited in the statement is, or is considered to be, material to patentability as defined in §1.56.

X This statement qualifies under 37 C.F.R. §1.97, subsection (b) because (check all that apply):

- ☐ (1) It is being filed within 3 months of the application filing date
-- OR --
- ☐ (2) It is being filed within 3 months of entry of a national stage
-- OR --
- X (3) It is being filed before the mail date of the first Office Action on the merits.

☐ 37 C.F.R. §1.97(c). If this statement is being filed after the latest of: (1) three months beyond the filing date of a national application; (2) three months beyond the date of entry of the national stage as set forth in §1.491 in an international application; or (3) the mailing date of a first Office action on the merits, but before the mailing date of the earlier of a final office action under §1.113 or a notice of allowance under §1.311, then:

☐ a certification as specified in §1.97(e) is provided below; or

☐ a fee of \$240.00 as set forth in §1.17(p) is authorized below, enclosed, or included with the payment of other papers filed together with this statement.

☐ 37 C.F.R. §1.97(d). If this statement is being filed after the mailing date of the earlier of a final office action under §1.113 or a notice of allowance under §1.311, but before payment of the issue fee, then:

A. a certification as specified in §1.97(e) is completed below; and

B. a petition under 37 C.F.R. §1.97(d) requesting consideration of this statement is submitted herewith; and

C. a fee of \$130.00 as set forth in §1.17(i)(1) is authorized below, enclosed, or included with the payment of other papers filed together with this statement.

X **Fee Authorization.** The Commissioner is hereby authorized to charge underpayment of any additional fees or credit any overpayment associated with this communication to Deposit Account No. 23-2415 (Docket No. 18461.702). A duplicate copy of this authorization is enclosed.

Respectfully submitted,

WILSON SONSINI GOODRICH & ROSATT

Date: 9/4/98

By: [Signature]
Paul Davis
Reg. No. 4704

650 Page Mill Road
Palo Alto, CA 94304-1050
(650) 493-9300



SHEET 1 OF 1

INFORMATION DISCLOSURE CITATION				ATTY. DOCKET NO. 18461.702		APPLICATION NO. 08/824,142	
PTO-1449				TITLE INTRAVASCULAR STENT			
				APPLICANT G. David Jang			
				FILING DATE March 26, 1997		GROUP 3738 Not Yet Assigned	
U.S. PATENT DOCUMENTS							
EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE	
<i>JN</i>	5,776,183	7/7/98	Kanesake, et al.				
	5,776,161	7/7/98	Globerman				
	5,697,971	12/16/97	Fischell, et al.				
	5,695,516	12/9/97	Fischell, et al.				
	5,593,442	1/14/97	Klein				
	5,591,197	1/7/97	Orth, et al.				
	5,545,210	8/13/96	Hess, et al.				
<i>JN</i>	5,102,417	4/7/92	Palmaz				
FOREIGN PATENT DOCUMENTS							
EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation Yes No	
<i>JN</i>	WO 97/40781	11/6/97	PCT				
<i>JN</i>	WO 97/40780	11/6/97	PCT				
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
EXAMINER <i>J. Nguyen</i>				DATE CONSIDERED <i>12/28/98</i>			

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

EXHIBIT 7

Attorney Locket No. 18461-702 ^{#7} ~~And B~~

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor: Jang

Application No.: 08/824,142

Filed: March 25, 1997

For: INTRAVASCULAR STENT



Group Art Unit: 3738

Examiner: Nguyen, D.

RESPONSE TO RESTRICTION REQUIREMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

This is in response to the Office Action mailed September 28, 1998, and is submitted on or before the current due date of October 28, 1998.

Election of Species:

Applicant elects to prosecute Species VII, shown in Figure 8C.

Identification of Species:

Applicant identifies the elected Species VII as three-pieces-linear connecting struts.

Claims readable upon Elected Species:

Applicant identifies the following claims as readable upon the elected species: claims 1-13, 17, 19-22, 49, 60, 63-69 and 72.

Cancellation of Non-Elected Claims:

Applicant cancels claims 14-16, 18, 23-48, 50-59, 61-62, 70-71 and 73-74 with traverse, for further prosecution in a divisional application to be filed at a later date.

CONCLUSION

Applicant believes that the application is now in condition for examination.

Respectfully submitted,

Date: 10/26/98

By: Paul Davis

Paul Davis, Reg. No. 29,294

650 Page Mill Road
Palo Alto, California 94304
(415) 493-9300

3738

Please type a plus sign (+) inside this box → ☐

Approved for use through 9/30/00. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM
(to be used for all correspondence after initial filing)

Application Number	08/824,142
Filing Date	March 25, 1997
First Named Inventor	G. David Jang
Group Art Unit	3738
Examiner Name	Nguyen, D.
Total Number of Pages in This Submission	2
Attorney Docket Number	18461-702

ENCLOSURES (check all that apply)

<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Assignment Papers (for an Application)	<input type="checkbox"/> After Allowance Communication to Group
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input checked="" type="checkbox"/> Amendment / Response	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition Routing Slip (PTO/SB/69) and Accompanying Petition	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> To Convert a Provisional Application	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address	<input type="checkbox"/> Additional Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	
<input type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> Small Entity Statement	
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> Request for Refund	
<input type="checkbox"/> Response to Missing Parts/Incomplete Application	Remarks	
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	The Commissioner is authorized to charge Deposit Account 23-2415 (18461-702) for any fees, including petition fees, due in connection with this paper.	

RECEIVED
NOV - 4 1998
Group 3700

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Paul Davis, Reg. No. 29,294
Signature	<i>Paul Davis</i>
Date	10/26/98

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on this date: 10/26/98

Typed or printed name	Sidney Manibusan
Signature	<i>Sidney Manibusan</i>
Date	10/26/98

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

EXHIBIT 8



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
 Address: COMMISSIONER OF PATENTS AND TRADEMARKS
 Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
127524-107	03/25/97	WANG	D 12628-717

GM31/1231
 WILSON SONSINI GOODRICH ROSATI
 650 PAGE MILL ROAD
 PALO ALTO CA 94304-1050

EXAMINER	
NGUYEN, D. #8	
ART UNIT	PAPER NUMBER
3735	-

DATE MAILED: 12/31/98

Please find below a communication from the EXAMINER in charge of this application.

Commissioner of Patents

Office Action Summary	Application No. 08/824,142	Applicant(s) Jang	
	Examiner Dinh Nguyen	Group Art Unit 3738	

☒ Responsive to communication(s) filed on Nov 2, 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-13, 17, 19-22, 49, 60, 63-69, and 72 is/are pending in the application.

Of the above, claim(s) 4, 6, 8, and 9 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-3, 5, 7, 10-13, 17, 19-22, 49, 60, 63-69, and 72 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4, 6

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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Page 2

Art Unit: 3738

DETAILED ACTION

Election/Restriction

Applicant's election of Species VII in Paper No. 7 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

The cancellation of the non-elected claims is acknowledged.

As indicated in the restriction, due to numerous species and the complexity of the restriction, a refinement of the restriction may be necessary. A review of the elected claims reveal that claims 4, 6, 8 and 9 do not read on the elected Species VII (Figure 8C). Claim 4 requires the first column loop slot not to be parallel to the second column loop slot while claim 6 requires the first column loop slot to be collinear with the second column loop slot. Figure 8C clearly shows the first column loop slot to be parallel and non-collinear to the second column loop slot. Therefore, these claims are treated as non-elected. Applicant is advised to cancel these claims as Applicant has canceled the other non-elected claims.

Specification

The disclosure is objected to because of the following informalities:

At page 1, the blank spaces as to the serial numbers of the related U.S. patent applications must be filled-in. Examiner has checked the database for U.S. patent applications with the attorney docket numbers as cited and has found no U.S. patent applications to have the cited attorney docket numbers. Please check these numbers again.

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The copyright symbol inadvertently used by Applicant at line 13 of page 2, and elsewhere in the application has been corrected by Examiner to be --(C)--.

As to the brief descriptions for figures 8A to 9, "accord" has been changed to --accordance-- for grammatical clarity.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claims 1, 10-12, 21, 64 and 67-69 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 1, at line 6, a comma is missing after "a first serial connecting strut."

With respect to claim 10, the claim language makes it unclear which spacing is being compared to which. Examiner recommends inserting after "and" at line 2, --the spacing distance between--. However, it is also unclear from the claim language as to which spacing in relation to the strut pairs are being compared, i.e., the horizontal spacing or the vertical spacing. Applicant is required to add claim language more clearly define the spaces. Applicant should caution in doing this such that horizontal and vertical spacing is clearly defined as well, i.e., which direction is considered horizontal and which is vertical. It is recommended that any directions of spacings and angles as described should be used in relation to a longitudinal axis of the stent.

Claim 11 suffers from the same indefiniteness as indicated for claim 10.

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Claim 12 also suffers from the same indefiniteness. Note that claim 12 is better defined as to which two spacings are being compared, i.e., the spacing from the first column strut pair versus the spacing from the second column strut pair. However, as with the other claims, it is unclear as to whether the "horizontal" spacing or the "vertical" spacing is being compared.

In claim 21, second to the last line, a comma is missing after "a distal section".

As to claim 64, a third slant angle was claimed in the last line of the claim but the first and second angle have not been defined yet.

Claims 67-69 refer to a third angle and therefore is indefinite similarly as for claim 64. In claim 69, at line 3, "the first slant angle" lacks antecedent support.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent

Claims 1-3, 7, 12, 17, 21, 22 and 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Pinchasik et al., USPN 5,449,373 as submitted in Applicant's IDS. Pinchasik discloses a stent having all of the claimed features. See figures 2A, 2B and 2C. The stent as disclosed have different columns of expansion struts and connecting struts as claimed. In these figures, the cells immediately underneath the expansion struts 112 are asymmetrical in shape as

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claimed for claim 1. As to claim 21, the claim merely requires two sets of column struts and a column of expansion struts having a linear section and an angle. Figures 2A-2C clearly show a stent meeting all of these broadly claimed features. The independent claims as cited above merely require the struts to have generic geometry which are clearly found in the stent of Pinchasik.

Claims 1-3, 5, 10-13, 22, 49, 60 and 63 are rejected under 35 U.S.C. 102(e) as being anticipated by Orth et al., USPN 5,591,197 as submitted in Applicant's IDS. Orth discloses a stent having all of the broadly claimed features. See figure 1C for example. As discussed in relation to Pinchasik above, the Orth stent also have the different columns of expansion struts and connecting struts as claimed for claim 1 and its dependent claims. Note that although the cells as defined from the struts in this Orth stent have repetitive features, at least some of the cells are asymmetrical in shape in at least one direction.

As seen in figure 1C, the lowermost cells when folded in half such that a top half and a bottom half does not match each other, would indicate that the cells are not completely symmetric. The use of this language without further details are broadly interpreted by Examiner as such.

As to claim 49 and its dependent claims, examining the middle column of expansion struts in figure 1 of Orth, this column is "circumferentially offset" from the some of the other columns thus meeting the broad claim language.

Claims 1-3, 7, 10-13, 17, 21, 22 and 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Israel et al., USPN 5,733,303. Israel discloses a stent meeting all of the broadly

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claimed features, i.e. a series of expansion struts and connecting struts and asymmetric cells as broadly interpreted in a similar fashion as discussed for Orth and Pinchasik above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19, 20, 65, 66 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pinchasik, Orth or Israel as applied above in view of Fischell et al., USPN 5,607,442. With respect to these claims, the primary references as applied do not disclose the use of radiopaque material and electroplating. However, Fischell teaches using radiopaque material for fluoroscopic examination and electroplating for stent material. See abstract and column 3, lines 39-49. It would have been obvious to one of ordinary skill in the art to have combined the teaching of using radiopaque material and electroplating, as taught by Fischell, to the stents of Pinchasik, Orth or Israel, in order to provide fluoroscopic examination.

As to claims 65 and 66, any variation of column and struts are considered design choice because they are directly related to how far a doctor wants the stent to expand which depends on the nature of the defect that is being repaired.

Note that as indicated in the 112 rejection, different angles as formed in the struts must be clearly claimed and have been treated in the best manner as interpreted from the claim language

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due to indefiniteness. Any related applications as mislabeled in the specification must be corrected. Due to the numerous claims and applications applied by Applicant, any claims similar in substance may be subject to a double patenting rejection.

Pertinent Art

The following patents are considered pertinent such that they are considered to meet some of Applicant's broad claims: Kanesaka (as submitted in Applicant's IDS), Richter, Jayaraman (see '949 at figures 10 and 11 for example; but this patent's priority date does not meet Applicant's priority date), Al-Saadon, and Lee et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dinh X. Nguyen whose telephone number is (703) 305-3522.



Dinh X. Nguyen

December 29, 1998

Notice of References Cited			Application No. 08/824,142		Applicant(s) Jang	
			Examiner Dinh Nguyen		Group Art Unit 3738	Page 1 of 1

U.S. PATENT DOCUMENTS						
	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	
A	5,733,303	3/1/98	Israel et al.	606	198	
B	5,807,111	9/1998	Richter	623	1	
C	5,713,949	2/1998	Jayaraman	623	1	
D	5,755,776	5/1998	Al-Saadon	623	1	
E	5,755,781	5/1998	Jayaraman	623	1	
F	5,776,181	7/1998	Lee et al.	623	1	
G						
H						
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FOREIGN PATENT DOCUMENTS						
	DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUBCLASS
N						
O						
P						
Q						
R						
S						
T						

NON-PATENT DOCUMENTS	
	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)
U	
V	
W	
X	

EXHIBIT 9

PATENT
Attorney Docket No. 18461-702

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

G. David Jang

Application No.: 08/824,142

Filed: March 25, 1997

For: INTRAVASCULAR STENT



Group Art Unit: 3738

Examiner: Nguyen, D.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on

Date: 3/26/97
Signature: [Signature]
Date: 3/26/97

AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

This is in response to the Office Action mailed December 31, 1998. Please consider the following amendments and remarks.

RECEIVED

APR 02 1999

TECHNOLOGY CENTER 3700

IN THE SPECIFICATION:

Please amend the specification as follows:

Please delete the entire paragraph entitled "Cross Reference to Related Applications" and replace with the following:

Cross-reference to Related Applications

This application claims the benefit of Provisional Patent Application No. 60/017,484, filed April 26, 1996, the disclosure of which is incorporated by reference. This application is related to U.S. Patent Application Serial No. 08/824,866, filed March 26, 1997, entitled "Intravascular Stent" and U.S. Patent Application Serial No. 08/824,865, filed March 25, 1997, entitled "Intravascular Stent", both having same named inventor G. David Jang and incorporated by reference.

IN THE CLAIMS:

Kindly amend the claims as follows:

1. (Amended) A stent in a non-expanded state, comprising:

a first column expansion strut pair formed of a first expansion strut and a parallel second expansion strut, the first and second expansion struts being coupled by a substantially linear joining strut that is joined to each of the first and second expansion struts at a non-perpendicular angle, a plurality of the first column expansion strut pair forming a first expansion column;

a first connecting strut column formed of a plurality of first connecting struts, wherein the first connecting strut column couples the first expansion column to the second expansion column and at least a portion of the first connecting struts include a proximal section, a distal section, a first linear section and a first slant angle.

49. (Amended) A stent in a non-expanded state, comprising:

a first expansion column formed of a plurality of [first expansion struts] pairs of a first expansion strut and a parallel second expansion strut, the first and second expansion struts being coupled by a substantially linear joining strut that is joined to each of the first and second expansion struts at a non-perpendicular angle;

a second expansion column formed of a plurality of [second expansion struts] pairs of a first expansion strut and a parallel second expansion strut, the first and second expansion struts being coupled by a substantially linear joining strut that is joined to each of the first and second expansion struts at a non-perpendicular angle;

a first connecting strut column formed of a plurality of first connecting struts, wherein the first connecting strut column couples the first expansion column to the second expansion column and a first expansion strut in the first expansion column is circumferentially offset from a corresponding second expansion strut of the second expansion column.

55. (Amended) The stent of claim [49] ⁴⁹⁻¹⁵ 55, further comprising:

a third expansion column formed of a plurality of third expansion struts; and

a second connecting strut column formed of a plurality of second connecting struts coupling the second expansion column to the third expansion column, wherein at least a portion of the second expansion struts in the second column are circumferentially offset from a corresponding portion of the third expansion struts of the third expansion column.

Please add the following new claims:

1 --75. The stent of claim 1, wherein the substantially linear joining struts of the first and
 2 second columns each has a curved proximal end.

1 76. The stent of claim 1, wherein the substantially linear joining struts of the first and
 2 second columns each has a curved distal end.

1 77. The stent of claim 1, wherein the substantially linear joining struts of the first and
 2 second columns each has a curved proximal end and a curved distal end.

1 78. The stent of claim 21, wherein the substantially linear joining struts of the first and
 2 second columns each has a curved proximal end.

C2 Cancel

a second column expansion strut pair ~~formed of a first expansion strut and a parallel second expansion strut, the first and second expansion struts being coupled by a substantially linear joining strut that is joined to each of the first and second expansion struts at a non-perpendicular angle, a plurality of the second column expansion strut pair forming a second expansion column; and~~
 a first serial connecting strut, a plurality of first serial connecting struts forming a first connecting strut column, the plurality of first serial connecting struts coupling the first expansion column to the second expansion column; and
 wherein the first expansion column, the second expansion column, and the first connecting strut column forming a plurality of geometric cells and at least a portion of the plurality are asymmetrical geometric cells.

Sub #8

10. (Amended) The stent of claim 1, wherein a spacing distance between the first expansion column strut pair and ~~the spacing distance between~~ an adjacent first expansion column strut pair in the first expansion column are different.

11. (Amended) The stent of claim 1, wherein a spacing distance between the second column expansion strut pair and ~~the spacing distance between~~ an adjacent second column expansion strut pair in the second expansion column are different.

C3

12. (Amended) The stent of claim 2, wherein a spacing distance between the first expansion column strut pair and ~~the spacing distance between~~ an adjacent first expansion column strut pair in the first expansion column, and a spacing distance between the second column expansion strut pair and ~~the spacing distance between~~ an adjacent second column expansion strut pair in the second expansion column are the same.

Sub 75

13. (Amended) The stent of claim 2, wherein a spacing distance between the first expansion column strut pair and ~~the spacing distance between~~ an adjacent first expansion column strut pair in the first expansion column, and a spacing distance between the second column expansion strut pair and ~~the spacing distance between~~ an adjacent second column expansion strut pair in the second expansion column are different.

21. (Amended) A stent in a non-expanded state, comprising:

C4

a first expansion column formed of a plurality of [first expansion struts] ~~pairs of a first expansion strut and a parallel second expansion strut, the first and second expansion struts being coupled by a substantially linear joining strut that is joined to each of the first and second expansion struts at a non-perpendicular angle;~~

a second expansion column formed of a plurality of [second expansion struts] ~~pairs of a first expansion strut and a parallel second expansion strut, the first and second expansion struts being coupled by a substantially linear joining strut that is joined to each of the first and second expansion struts at a non-perpendicular angle;~~

1 79. The stent of claim 21, wherein the substantially linear joining struts of the first and
2 second columns each has a curved distal end.

1 80. The stent of claim 21, wherein the substantially linear joining struts of the first and
2 second columns each has a curved proximal end and a curved distal end.

3 81. The stent of claim 49, wherein the substantially linear joining struts of the first and
4 second columns each has a curved proximal end.

1 82. The stent of claim 49, wherein the substantially linear joining struts of the first and
2 second columns each has a curved distal end.

2 83. The stent of claim 49, wherein the substantially linear joining struts of the first and
2 second columns each has a curved proximal end and a curved distal end.--

REMARKS

The Examiner has required further restriction of the elected claims, and states that claims 4, 6, 8 and 9 do not read on the elected Species VII, Figure 8C, has treated the claims as non-elected, and advises applicants to cancel the claims.

The Examiner has objected to the specification due to informalities, and has required applicant to supply information related to priority applications.

Applicant has deleted the section "Cross-Reference to Related Applications" in its entirety, and has supplied a new section identifying the priority applications by the correct serial numbers.

Claims 1, 10-12, 21, 64, and 67-69 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The claims have been amended to overcome this ground of rejection.

Claims 1-3, 7, 12, 17, 22-22 and 35 stand rejected under 35 U.S.C. § 102(a) as anticipated by Pinchasik, et al. (U.S. 5,449,373). Claims 1-3, 5, 10-13, 22, 49, 60 and 63 stand rejected under 35 U.S.C. § 102(e) as anticipated by Orth, et al. (U.S. 5,591,197). Claims 1-3, 7, 10-13, 17, 21-22 and 35 stand rejected under 35 U.S.C. § 102(e) as anticipated by Israel, et al. (U.S. 5,733,303). Claims 19-20, 65-66 and 72 stand rejected under 35 U.S.C. § 103(a) as being obvious over Pinchasik, Orth or Israel in view of Fischell, et al. (U.S. 5,607,442).

These grounds of rejection are respectively traversed.

One embodiment of the present invention, as set forth in claim 1, is a stent in a non-expanded state. A first column expansion strut pair is defined by a first expansion strut and a parallel second expansion strut. The first and second expansion struts are coupled by a substantially linear joining strut that is joined to each of the first and second expansion struts at a non-perpendicular angle. A plurality first column expansion strut pairs form a first expansion column. A second column expansion strut pair is defined by a first expansion strut and a parallel second expansion strut. The first and second expansion struts are coupled by a substantially linear joining strut that is joined to each of the first and second expansion struts at a non-perpendicular angle. A plurality of the second column

expansion strut pair form a second expansion column. A first serial connecting strut column includes a plurality of serial connecting struts that couple the first expansion column to the second expansion column. The first expansion column, second expansion column, and first connecting strut column form a plurality of geometric cells. At least a portion of the geometric cells are asymmetrical.

The un-expanded stent of Penchasik, et al., is most readily seen in Figures 2(a) and 2(b). In Penchasik et al., connectors 110 are links 212 that connect a front end 104 to a tail end 106 of adjacent segments 102. The connectors 110 have cylindrical configurations. The stent of Penchasik et al., fails to provide strut pairs that are coupled by a linear joining strut where the joining strut is coupled to the individual struts of the pair at a non-perpendicular angle.

Orth, et al., and Israel also fail to provide linear joining struts that are coupled to individual struts in strut pair at a non-perpendicular angle. See for example Figure 1(c).

There is no suggestion or teaching that the un-expanded stents of Penchasik, et al., Orth, et al., Israel or Fischell, either alone or in combination, can or should be modified to the linear joining strut as set forth in claim 1 of the present invention.

CONCLUSION

Applicant believes that the application is now in condition for allowance and respectfully requests issuance of a notice of allowance.


Respectfully submitted,

WILSON SONSINI GOODRICH & ROSATI

Date:

3/24/99

By:


Paul Davis, Reg. No. 29,294

650 Page Mill Road
Palo Alto, California 94304
(415) 493-9300

Please type a plus sign (+) inside this box. ☐Approved for use through 12/30/00. OMB 0851-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	08/824,142	
	Filing Date	03/25/1997	
	First Named Inventor	Jang	
	Group Art Unit	3738	
	Examiner Name	Nguyen, D.	
Total Number of Pages in This Submission	6	Attorney Docket Number	18461-702

ENCLOSURES

<input type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Authorization to Charge Deposit Account Below <input checked="" type="checkbox"/> Amendment/Response <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declarations <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	Assignment Papers (for an Application) Drawing(s) Revocation and Power of Attorney by Assignee Petition Routing Slip (PTO/SB/68) and Accompanying Petition To Convert a Provisional Application Declaration of Inventor(s) Terminal Disclaimer Small Entity Statement Request for Corrected Filing Receipt After Allowance Communication to Group Appeal Communication to Board of Appeals and Interferences Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) Proprietary Information Status Letter Additional Enclosure(s) (please identify below): Remarks: THE COMMISSIONER IS AUTHORIZED TO CHARGE DEPOSIT ACCOUNT 23-2415 FOR ANY FEES IN CONNECTION WITH THIS CORRESPONDENCE
--	--

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual Name	Paul Doyle, Reg. No. 29,284, WILSON SONSINI GOODRICH & ROSATI	
Signature	<i>Paul Doyle</i>	Date 3/24/99

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as first class mail for: Assistant Commissioner for Patents, Washington, D.C. 20231, on		Date	3/26/99
Typed or printed name	Signer: Maribuen		
Signature	<i>Maribuen</i>	Date	3/26/99

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

EXHIBIT 10



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
 Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.

GM31/0622
 WILSON GONSINI GOODRICH ROSATI
 650 PAGE MILL ROAD
 PALO ALTO CA 94304-1050

EXAMINER	
NGUYEN, D. #10	
ART UNIT	PAPER NUMBER
3752	

DATE MAILED: 06/22/07

Please find below a communication from the EXAMINER in charge of this application.

Commissioner of Patents

Office Action Summary	Application No. 08/824,142	Applicant(s) Jeng
	Examiner Dinh Nguyen	Group Art Unit 3738

☒ Responsive to communication(s) filed on Mar 30, 1999.

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-13, 17, 19-22, 49, 60, 63-69, 72, and 75-83 is/are pending in the application.

Of the above, claim(s) 4, 6, 8, and 75-83 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-3, 5, 7, 9-13, 17, 19-22, 49, 60, 63-69, and 72 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

-- SEE OFFICE ACTION ON THE FOLLOWING PAGES --

Application/Control Number: 08/824,142

Page 2

Art Unit: 3738

DETAILED ACTION

Election/Restriction

In the previous office action, it was stated:

"As indicated in the restriction, due to numerous species and the complexity of the restriction, a refinement of the restriction may be necessary. A review of the elected claims reveal that claims 4, 6, 8 and 9 do not read on the elected Species VII (Figure 8C). Claim 4 requires the first column loop slot not to be parallel to the second column loop slot while claim 6 requires the first column loop slot to be collinear with the second column loop slot. Figure 8C clearly shows the first column loop slot to be parallel and non-collinear to the second column loop slot. Therefore, these claims are treated as non-elected. Applicant is advised to cancel these claims as Applicant has canceled the other non-elected claims."

Applicant's response did not either argue against the restriction of claims 4, 6, 8, and 9, or cancel these claims. The restriction stands with respect to these claims.

Applicant has added claims 75-83. These new claims require the joining struts to be curved. They clearly do not read on the elected species (figure 8C) which calls for linear joining struts. Additionally, they are in conflict with Applicant's amendment to the independent claims, requiring the joining struts to be substantially linear.

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Claim Rejections - 35 USC § 112

Claims 10-12, 64 and 67-69 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As indicated in the previous office action, it is unclear from the claim language as to which spacing in relation to the strut pairs are being compared, i.e., the horizontal spacing or the vertical spacing. Applicant is required to add claim language more clearly define the spaces. Applicant should caution in doing this such that horizontal and vertical spacing is clearly defined as well, i.e., which direction is considered horizontal and which is vertical. It is recommended that any directions of spacings and angles as described should be used in relation to a longitudinal axis of the stent. Applicant's amendment has not remedied this indefiniteness.

Claim 11 suffers from the same indefiniteness as indicated for claim 10.

Claim 12 also suffers from the same indefiniteness. Note that claim 12 is better defined as to which two spacings are being compared, i.e., the spacing from the first column strut pair versus the spacing from the second column strut pair. However, as with the other claims, it is unclear as to whether the "horizontal" spacing or the "vertical" spacing is being compared.

As to claim 64, a third slant angle was claimed in the last line of the claim but the first and second angle have not been defined yet.

Claims 67-69 refer to a third angle and therefore is indefinite similarly as for claim 64. In claim 69, at line 3, "the first slant angle" lacks antecedent support.

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Note that these indefiniteness regarding the slant angles were indicated in the previous office action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371 of this title before the invention thereof by the applicant for patent.

Claims 1-3, 7, 12, 17, 21, 22 and 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Pinchasik et al., USPN 5,449,373 as submitted in Applicant's IDS and applied in the previous office action. The rejection is reiterated herein for convenience:

"Pinchasik discloses a stent having all of the claimed features. See figures 2A, 2B and 2C. The stent as disclosed have different columns of expansion struts and connecting struts as claimed. In these figures, the cells immediately underneath the expansion struts 112 are asymmetrical in shape as claimed for claim 1. As to claim 21, the claim merely requires two sets of column struts and a column of expansion struts having a linear section and an angle. Figures 2A-2C clearly show a stent meeting all of these broadly claimed features. The independent claims as cited above merely require the struts to have generic geometry which are clearly found in the stent of Pinchasik."

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Claims 1-3, 5, 10-13, 22, 49, 60 and 63 are rejected under 35 U.S.C. 102(e) as being anticipated by Orth et al., USPN 5,591,197 as submitted in Applicant's IDS and applied in the previous office action. Orth discloses a stent having all of the broadly claimed features. See figure 1C for example. As discussed in relation to Pinchasik above, the Orth stent also have the different columns of expansion struts and connecting struts as claimed for claim 1 and its dependent claims. Note that although the cells as defined from the struts in this Orth stent have repetitive features, at least some of the cells are asymmetrical in shape in at least one direction.

As seen in figure 1C, the lowermost cells when folded in half such that a top half and a bottom half does not match each other, would indicate that the cells are not completely symmetric. The use of this language without further details are broadly interpreted by Examiner as such.

As to claim 49 and its dependent claims, examining the middle column of expansion struts in figure 1 of Orth, this column is "circumferentially offset" from the some of the other columns thus meeting the broad claim language.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19, 20, 65, 66 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pinchasik, Orth or Israel as applied above in view of Fischell et al., USPN 5,607,442. With respect to these claims, the primary references as applied do not disclose the use of radiopaque material and electroplating. However, Fischell teaches using radiopaque material for fluoroscopic examination and electroplating for stent material. See abstract and column 3, lines 39-49. It would have been obvious to one of ordinary skill in the art to have combined the teaching of using radiopaque material and electroplating, as taught by Fischell, to the stents of Pinchasik, Orth or Israel, in order to provide fluoroscopic examination.

As to claims 65 and 66, any variation of column and struts are considered design choice because they are directly related to how far a doctor wants the stent to expand which depends on the nature of the defect that is being repaired.

Note that as indicated in the 112 rejection, different angles as formed in the struts must be clearly claimed and have been treated in the best manner as interpreted from the claim language due to indefiniteness. Any related applications as mislabeled in the specification must be corrected. Due to the numerous claims and applications applied by Applicant, any claims similar in substance may be subject to a double patenting rejection.

Pertinent Art

The following patents are considered pertinent such that they are considered to meet some of Applicant's broad claims: Kanesaka (as submitted in Applicant's IDS), Richter, Jayaraman (see

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'949 at figures 10 and 11 for example; but this patent's priority date does not meet Applicant's priority date), Al-Saadon, and Lee et al. These references were all cited in the previous office action.

Response to Applicant's Arguments

Applicant has did not argue against the rejection made in the previous office action. New claim language were added to the independent claims, but merely requiring the struts in the expansion column to be parallel, and joining strut to be "substantially linear" and non-perpendicular to the the parallel struts of the expansion column. Applicant then merely stated that the prior art is deficient of these newly added features.

With respect to the Pinchasik stent, see figures 2A and 2B. The expansion struts 102 is clearly parallel. The joining struts, although slightly cylindrical as argued by Applicant, is still considered to be "substantially linear" from the figures. However, figure 3A and 3B clearly has parts to the joining struts 124 that are "substantially linear" and non-perpendicular to the parallel struts. Applicant's elected species of figure 8C has its joining struts to have parts that are linear but not completely linear, in the same fashion as seen in figure 3A and 3B of Pinchasik.

With respect to the Orth stent, see figure 1. The struts 17 forming an expansion column is clearly parallel in part. The joining strut 16 is clearly substantially linear. Since strut 16 ends in both directions toward parts of the expansion column that is curvilinear, it is considered non-perpendicular somewhat with respect to the expansion column.

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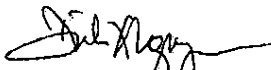
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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dinh X. Nguyen whose telephone number is (703) 305-3522.


Dinh X. Nguyen

June 3, 1999



Mickey Yu
Supervisory Patent Examiner
Group 3700

EXHIBIT 11

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on September 21, 1999.

Donna L. Hengst
Donna L. Hengst



AF/GP3738
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(MG)

PATENT
Attorney Docket No. 18461-702

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of)

G. David Jang)

Application No.: 08/824,142)

Filed: March 25, 1997)

For: INTRAVASCULAR STENT)

Group Art Unit: 3738

Examiner: Nguyen, D

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AMENDMENT AFTER FINAL UNDER C.F.R. 1.116

Assistant Commissioner for Patents
Washington, D.C. 20231
Box AF

Sir:

In response to the Examiner's Final Office Action mailed June 22, 1999, Applicant respectfully requests reconsideration of the above-referenced application in view of the following amendments and remarks.

RESTRICTION/ELECTION REQUIREMENT:

Applicant withdraws claims 4, 6, 8, 9, and 75-83. Applicant requests reinstatement of these claims if claim 1 is allowed.

IN THE CLAIMS:

Please amend the claims as follows:

1. (Twice Amended) A stent in a non-expanded state, comprising:

a first column expansion strut pair formed of a first expansion strut and a **[parallel]** second expansion strut that is parallel to the first expansion strut, the first and second expansion struts being coupled by a substantially linear joining strut that is joined to each of the first and second expansion struts at a non-perpendicular angle, a plurality of the first column expansion strut pair forming a first expansion column;

a second column expansion strut pair formed of a first expansion strut and a parallel second expansion strut, the first and second expansion struts being coupled by a substantially linear joining strut that is joined to each of the first and second expansion struts at a non-perpendicular angle, a plurality of the second column expansion strut pair forming a second expansion column; and

[a first serial connecting strut,] a plurality of first serial connecting struts forming a first connecting strut column, the plurality of first serial connecting struts coupling the first expansion column to the second expansion column, a first connecting strut in the first connecting strut column including multiple linear sections; and

wherein the first expansion column, the second expansion column, and the first connecting strut column forming a plurality of geometric cells and at least a portion of the plurality are asymmetrical geometric cells.

10. (Twice Amended) The stent of claim 1, wherein a **[spacing]** first distance between the first expansion strut and the second expansion strut of the first expansion column strut pair **[and the spacing]** is different than a second distance between a first expansion strut and a second expansion strut of an adjacent first expansion column strut pair in the first expansion column are different.

11. (Twice Amended) The stent of claim [1] 10, wherein a **[spacing]** first distance between the first expansion strut and the second expansion strut of the second column expansion strut pair **[and the spacing]** is different than a second distance between a first expansion strut and a second expansion strut of an adjacent second column expansion strut pair in the second expansion column are different.

12. (Twice Amended) The stent of claim [2] 11, wherein **[a spacing distance between]** the first and second distance in the first expansion column **[strut pair and the spacing distance]**

between an adjacent first expansion column strut pair in the first expansion column, and a spacing distance between the second column expansion strut pair and the spacing distance between an adjacent second column expansion strut pair in the second expansion column] are the same, and wherein the first and second distance in the second expansion column are the same.

21. (Twice Amended) A stent in a non-expanded state, comprising:

a first expansion column formed of a plurality of pairs of a first expansion strut and a parallel second expansion strut, the first and second expansion struts being coupled by a substantially linear joining strut that is joined to each of the first and second expansion struts at a non-perpendicular angle;

a second expansion column formed of a plurality of pairs of a first expansion strut and a parallel second expansion strut, the first and second expansion struts being coupled by a substantially linear joining strut that is joined to each of the first and second expansion struts at a non-perpendicular angle;

a first connecting strut column formed of a plurality of first connecting struts, a first connecting strut in the first connecting strut column including multiple linear sections, wherein the first connecting strut column couples the first expansion column to the second expansion column and [at least a portion of the first connecting struts include a proximal section, a distal section, a first linear section and] includes a first slant angle formed between two of the multiple linear sections.

40. (Amended) The stent of claim 21, further comprising:

a third expansion strut column formed of a plurality of the third expansion struts; and

a second connecting strut column formed of a plurality of second connecting struts, a first connecting strut in the third connecting strut column including a linear section, wherein the second connecting strut column couples the second expansion column to the third expansion column and [at least a portion of the second connecting struts include a proximal section, a distal section, a first linear section and] includes a third slant angle formed between two of the multiple linear sections.